

What is claimed is:

1. A display apparatus comprising:

a display member printed in gradations of color from a first color to a second color from one side of the member to other side;

an electro-optical display device having plural dot display sections disposed on the display member, each capable of allowing the light to transmit through and preventing the light from transmitting through; and

a driving circuit for selectively driving the plural dot display sections of the electro-optical display device to display data such as characters, images, etc. in gradations of color.

2. The display apparatus according to claim 1, wherein the electro-optical display device is a liquid crystal display device.

3. The display apparatus according to claim 2, wherein the liquid crystal display device comprises:

a pair of electrode substrates;

liquid crystal molecules of a twist orientation enclosed between the pair of electrode substrates; and

a pair of polarizing plates, one being disposed on an upper surface of one of the pair of electrode substrates, and the other being disposed on a bottom surface of the other one of the pair of electrode substrates, polarizing axes of the polarizing plates being parallel to each other.

4. The display apparatus according to claim 1, further comprising:

a light emitting member disposed beneath the display member, wherein the display member is printed translucently in gradations of color.

5 The display apparatus according to claim 4, wherein the light emitting member is an electroluminescence panel.

6. The display apparatus according to claim 1, further comprising:

an analog movement with a hand axis disposed beneath the display member; and

10 a minute hand and an hour hand; wherein the electro-optical display device and the display member each are formed with a through hole, and the hand axis of the analog movement penetrates through the through holes formed in the electro-optical display device and the display member,
15 appearing out of the electro-optical display device and the minute and hour hands are fixed to the appearing part of the hand axis of the analog movement.

7. The display apparatus according to claim 1, wherein the driving circuit selectively drives the plural dot display
20 sections of the electro-optical display device to display an animation.

8. The display apparatus according to claim 1, further comprising:

a casing with watch stripes, wherein the electro-optical
25 display device, the display member and the driving circuit are received in the casing.

9. The display apparatus according to claim 1, wherein the

plural dot display sections of the electro-optical display device are disposed substantially in an $N \times M$ matrix arrangement, and a shape of each of the plural dot display sections grows larger as a location of the dot display section on the electro-optical display device comes to the center from twelve o'clock and reduces narrower as the location of the dot display section on the electro-optical display device comes to six o'clock from the center, and an area where all the plural dot display sections are disposed forms substantially a round pattern.

10. The display apparatus according to claim 1, further comprising:

a time counting circuit for counting current-time data; wherein the electro-optical display device has a time displaying portion for displaying the current-time data counted by the time counting circuit.

11. An electronic watch provided with a display apparatus which comprises:

a display member having a first area and a second area at least partially different from the first area, and printed in gradations of color from a first color to a second color from one side of the member to other side;

an electro-optical display device having plural dot display sections disposed on the display member, each capable of allowing the light to transmit through and preventing the light from transmitting through;

a time counting circuit for counting current-time data;

a driving circuit for driving the dot display sections disposed within an area corresponding to the first area of the display member to display data such as characters, images, etc. in gradations of color, when the current-time data counted by the time counting circuit is within a first period of time, and for driving the dot display sections disposed within an area corresponding to the second area of the display member to display data such as characters, images, etc. in gradations of color, when the current-time data counted by the time counting circuit is within a second period of time.

12. The electronic watch according to claim 11, wherein the electro-optical display device is a liquid crystal display device.

13. The electronic watch according to claim 12, wherein the liquid crystal display device comprises:
a pair of electrode substrates;
liquid crystal molecules of a twist orientation enclosed between the pair of electrode substrates; and
a pair of polarizing plates, one being disposed on an upper surface of one of the pair of electrode substrates, and the other being disposed on a bottom surface of the other one of the pair of electrode substrates, polarizing axes of the polarizing plates being parallel to each other.

14. The electronic watch according to claim 11, further comprising:
a light emitting member disposed beneath the display member, wherein the display member is printed translucently in

gradations of color.

15. The electronic watch according to claim 14, wherein the light emitting member is an electroluminescence panel.

16. The electronic watch according to claim 11, further comprising:

an analog movement with a hand axis disposed beneath the display member; and

a minute hand and an hour hand; wherein the electro-optical display device and the display member each are formed with a through hole, and the hand axis of the analog movement penetrates through the through holes formed in the electro-optical display device and the display member, appearing out of the electro-optical display device and the minute and hour hands are fixed to the appearing part of the hand axis of the analog movement.

17. The electronic watch according to claim 11, wherein the driving circuit selectively drives the plural dot display sections of the electro-optical display device to display an animation.

18. The electronic watch according to claim 11, further comprising:

a casing with watch stripes, wherein the electro-optical display device, the display member and the driving circuit are received in the casing.

19. The electronic watch according to claim 11, wherein the plural dot display sections of the electro-optical display device are disposed substantially in an $N \times M$ matrix arrangement,

and a shape of each of the plural dot display sections grows larger as a location of the dot display section on the electro-optical display device comes to the center from twelve o'clock and reduces narrower as the location of the dot display section on the electro-optical display device comes to six o'clock from the center, and an area where all the plural dot display sections are disposed forms substantially a round pattern.

20. The electronic watch according to claim 11, wherein the electro-optical display device has a time displaying portion for displaying the current-time data counted by the time counting circuit.

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